Atlantic Billfish Fishery Management Plan Amendment

Chapter 6
REVISED FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

6.1 Introduction

The National Environmental Policy Act (NEPA) requires preparation of an Environmental Impact Statement (EIS) for major Federal actions that significantly affect the quality of the human environment. The 1988 Atlantic Billfish FMP included a Final EIS. NMFS published a Notice of Intent to prepare a DSEIS for the draft FMP amendment in the Federal Register (62 FR 45614; August 28, 1997), followed by 21 public scoping meetings. NMFS prepared an issues and options paper, *Issues and Options for Management of Atlantic Billfish* for discussion at the scoping meetings, and invited public comment on other options that should be considered and/or issues that were of particular importance to the public. NMFS held six meetings of its Atlantic Billfish AP during preparation of the DSEIS/draft FMP amendment and another meeting during the public comment period of the draft FMP amendment. All Atlantic Billfish AP meetings were open to the public. AP meetings and the 27 public hearings on the draft FMP amendment were held throughout the fishing region to give fishery participants an opportunity to attend meetings and hearings. NMFS took public comment and advise from the AP into consideration when preparing the FSEIS.

On March 26, 1999, EPA published the notice of availability of the FSEIS for the Atlantic billfish FMP amendment. As of the date of drafting this FSEIS, the public comment period on the draft FMP amendment and the proposed rule was still open. Thus, at that time, NMFS could not make final decisions regarding the preferred alternatives that were proposed in the FMP amendment/DSEIS. The Magnuson-Stevens Act requires publication of the final rule within 30 days following the end of the comment period on the proposed rule. In order to comply with requirements under NEPA, the Magnuson-Stevens Act, and the Administrative Procedures Act, NMFS considered the preferred alternatives identified in the DSEIS as final for purposes of the earlier FSEIS. Once the comment periods concluded, NMFS considered all comments and, if appropriate, modify preferred alternatives. The final preferred alternatives are presented in the record of decision, and incorporated in this final FMP amendment. This FSEIS revises the earlier FSEIS available in March 1999.

This revised FSEIS addresses the rebuilding and ongoing management of Atlantic billfish, including Atlantic blue and white marlin, west Atlantic sailfish, and longbill spearfish. It integrates aspects of domestic and international management of these fisheries under both the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act. Alternatives to rebuild and manage these fisheries include landing limits, effort limits, permitting and reporting requirements, and other measures. It lays a foundation for both domestic and international management of Atlantic billfish. Domestic management of Atlantic billfish presents several interesting problems for fishery managers and participants. Building and maintaining sustainable billfish fisheries is particularly challenging given the fact that many nations fish for these species. The United States accounts for a small fraction of total fishing-related mortality of some of these species. Consistency in implementation and enforcement of conservation and management measures by all fishing nations is an important management problem that affects domestic HMS management and is

considered in this FSEIS. Rebuilding overfished Atlantic billfish stocks will have a significant beneficial impact on the human environment.

The following table cross-references the Atlantic billfish FMP amendment to identify all the components of this revised FSEIS:

6.2 Purpose and Need for Action

As described in chapter 1, this final FMP amendment was prepared in response to new requirements of the Magnuson-Stevens Act, among them rebuilding overfished fisheries; minimizing bycatch and bycatch mortality, to the extent practicable; identifying and protecting essential fish habitat; and minimizing adverse impacts of fisheries regulations on fishing communities, to the extent practicable.

6.2.1 Problems for Resolution

The following problems that exist in the fisheries for Atlantic billfish have been identified in this FMP amendment and are addressed in this revised FSEIS. These problems are listed in no particular order and are described more fully in section 1.1.3.

- Overfished populations of Atlantic blue marlin, Atlantic white marlin, and west Atlantic sailfish.
- Status of longbill spearfish populations.
- Bycatch and discard mortality.
- Compliance with the 1997 ICCAT recommendation to reduce Atlantic blue marlin and Atlantic white marlin landings.
- Monitoring and data collection.

6.2.2 Objectives of the Atlantic Billfish FMP and FMP Amendment

The management objectives for the Atlantic billfish FMP amendment are described below and in section 1.1.6. These objectives serve as the foundation for many all of the final actions

and for any future actions under the framework regulation adjustment procedure discussed in section 3.11. They are listed below in no particular order.

- Maintain the highest availability of billfishes to the U.S. recreational fishery by implementing conservation measures that will reduce fishing mortality;

- Optimize the social and economic benefits to the nation by reserving the billfish resource for its traditional use, which in the continental U.S. is almost entirely a recreational fishery;

- Increase understanding of the condition of billfish stocks and the billfish fishery;

- Prevent and/or end overfishing of Atlantic billfish and adopt the precautionary approach to fishery management;

- Rebuild overfished Atlantic billfish stocks, and monitor and control all components of fishing mortality, both directed and incidental, so as to ensure the long-term sustainability of the stocks and promote Atlantic-wide stock recovery to the level where maximum sustainable yield can be supported on a continuing basis;

- Establish a foundation for the adoption of comparable international conservation and management measures, through international entities such as ICCAT, to rebuild overfished fisheries and to promote achievement of optimum yield for these species throughout their range, both within and beyond the EEZ;

- Minimize, to the extent practicable, bycatch and discard mortality;

- Better coordinate domestic conservation and management of the fisheries for Atlantic tunas, swordfish, sharks, and billfish, considering the multispecies nature of many highly migratory species (HMS) fisheries, overlapping regional and individual participation, international management concerns, and other relevant factors;

- Provide the data necessary for assessing the fish stocks and managing the fisheries, including addressing inadequacies in collection and ongoing collection of social, economic, and bycatch data about Atlantic billfish fisheries;

- Coordinate domestic regulations and ICCAT conservation measures for controlling Atlantic-wide fishing mortality;

- Consistent with other objectives of this amendment, to manage Atlantic billfish fisheries for the continuing optimum yield so as to provide the greatest overall benefit to the Nation, particularly with respect to recreational opportunities and taking into account the protection of marine ecosystems. Optimum yield is the maximum sustainable yield from the fishery, reduced by any relevant social, economic, or ecological factors;

- Minimize adverse social and economic effects on recreational and commercial activities to the extent practicable, consistent with ensuring achievement of the other objectives of this plan;

- Maximize protection of areas identified as essential fish habitat for Atlantic billfish, particularly for critical life stages; and

- Promote the live release of Atlantic billfish through active outreach and educational programs.

6.3 Final Actions

The following table compares the preferred alternatives in the draft FMP amendment with the final management measures taken by NMFS in the final FMP amendment to achieve the management objectives and management concerns described in Section 1.1.3 and 1.1.6. A number of the alternatives were changed or altered based on public comment and advise from the AP. For a full description of the reasons behind each change please see both the alternatives described in Chapter 3 and the comment and response section available at the end of this document. The full range of alternatives considered in the Atlantic billfish FMP amendment, and analyses of the impacts of all alternatives, can be found in chapter 3.

Preferred Alternative in Draft FMP Amendment	**Final Action in Final FMP Amendment**
Rebuilding Trajectories	
Recover overfished billfish stocks to biomass rebuilding target within 10 years.	- Establish a foundation for negotiation with ICCAT for a 10-year rebuilding plan.
Size Limits	
Increase minimum size limits for Atlantic blue marlin to 99 inches LJFL, 66 inches LJFL for Atlantic white marlin and 63 inches LJFL for west Atlantic sailfish.	Same
Bycatch	
Not in draft FMP amendment	Catch-and-release recreational fishery management program
Time-area closures - Status Quo	Atlantic Billfish Bycatch Reduction Strategy, consisting of management tools included in the HMS FMP, including: proposed rule for expanded time-area closures for greater effectiveness; limited access; reduced quotas; outreach programs; gear restrictions; and buy-back programs.

Gear Restrictions: - Allow removal of hook from billfish; and - Prohibit use of multiple hook per bait or lure by recreational billfish anglers	Drop the multiple hook prohibition and retain ability to allow hook removal from Atlantic billfish caught on fishing gear, as long as fish not removed from water.
Possession and Retention	
Establish a bag limit of 1 billfish per vessel per trip, with authority to adjust, including to zero.	No bag limit
Prohibit retention of longbill spearfish	Same
Maintain current commercial prohibitions	Same
Monitoring, Permitting and Reporting	
Require vessel permits and logbooks, if selected.	Same
Require observer on charterboats.	Voluntary observer program for charterboats. If data are not sufficient to satisfy objectives, establish a mandatory observer program.
Implement tournament notification requirements.	Same
Institute a June 1 to May 31 fishing year.	Same
Promote outreach programs	Same
Extension of the Management Unit and Management Authority	
Extend management unit for Atlantic blue marlin and white marlin to entire Atlantic Ocean and implement regulatory actions under Magnuson-Stevens Act and ATCA for Atlantic marlins.	Same

6.4 Affected Environment

A full description of the affected environment, including description of the stocks; habitat; fishing activities; economic characteristics; and social characteristics can be found in Chapter 2. A description of the essential fish habitat can be found in Chapter 4. Information on how each of the alternatives considered may affect the environment can be found in Chapter 3. Chapter 7 contains a more detailed discussion of the expected social impacts of the final actions on the fishing communities.

6.5 Environmental Consequences of Fisheries Actions: Effects of the Fishery on the Environment

Five criteria have been listed in Section 6.11 of NOAA Administrative Order 216-6 to assist in the evaluation of the significance of the fisheries management action. The following discussion addresses each of the five points relative to the Atlantic Billfish FMP Amendment.

1. Will the final actions included in the FMP amendment jeopardize the productive capacity of the target resource species or any related stocks that may be affected by the action?

The 1988 Atlantic billfish FMP reserved the Atlantic billfish for recreational anglers in the United States by requiring the release of all Atlantic billfish, whether alive or dead, caught by commercial fishing operations inside the U.S. EEZ. Regulations were also developed to prohibit the sale of Atlantic billfish from their management unit. To further reduce Atlantic billfish mortality rates from the recreational fishery operating in the U.S. EEZ, minimum size limits were instituted to reduce Atlantic blue and white marlin recreational landings by approximately 50 percent and 30 percent for west Atlantic sailfish from pre-1988 levels. In addition, mandatory tournament reporting was initiated by the FMP to provide a mechanism to estimate total catch and effort for the recreational fishery. These actions have reduced landings of Atlantic blue marlin since 1988 by approximately 73 percent relative to pre-Atlantic billfish FMP levels (1980 to 1988); annual white marlin recreational landings have declined by approximately 90 percent over the same time frame.

Rebuilding overfished stocks and preventing overfishing of healthy stocks is a major objective of the Atlantic billfish FMP amendment and an important directive from Congress in the form of National Standard 1 of the Magnuson-Stevens Act. National Standard 1 states that "Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry." Optimum yield is defined as the yield from a fishery that will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities and taking into account the protection of marine ecosystems. Optimum yield is the maximum sustainable yield from the fishery, reduced by any relevant social, economic, or ecological factors. A management strategy that maximizes recreational encounters is different from one seeking to maximize landings, and will impact the selected level of Optimum yield. To that end the Optimum yield levels for Atlantic blue marlin, Atlantic white marlin and west Atlantic sailfish are shown in Table 3.3.1, and are defined as the amount of fish harvested that would not reduce the remaining biomass below 30 percent above the biomass level associated with maximum sustainable yield (i.e., $1.3B_{MSY}$). The specification of Optimum yield follows the NSGs as discussed in §600.310(f)(4)(i), which states that "the amount of fish that constitutes the Optimum yield should be expressed in terms of numbers or weight of fish. However, Optimum yield may be expressed as a formula that converts periodic stock assessments into target harvest levels..." Setting the target fishing mortality rate below the limit fishing mortality rate (MFMT) of maximum sustainable yield also safeguards against uncertainty in stock assessments and

imperfect implementation of management actions and other factors that can cause the F_{target} to be approached or surpassed.

The cumulative long-term impact of the final actions is to establish sustainable fisheries for Atlantic billfish (Chapter 3). In the case of overfished stocks (Atlantic blue marlin, Atlantic white marlin, and west Atlantic sailfish), achievement of this long-term goal is dependent upon rebuilding the stocks. The final action will not jeopardize the productive capacity of the target species. In some cases, the final action may cause an increase in fishing pressure on non-target stocks such as dolphin (mahi-mahi) and wahoo. These effects are considered in the FMP amendment and are not expected to jeopardize the productive capacity of the stocks. The final actions are not expected to jeopardize the productive capacity of stocks of protected marine mammals, sea turtles, or sea birds.

2. Will final actions included in the FMP amendment cause damage to ocean or coastal habitat?

The final actions of the Atlantic billfish FMP amendment are not expected to have any adverse effect on the ocean and coastal habitats. The Atlantic billfish fishery occurs primarily in deep oceanic waters, often in excess of 50 miles from the shore, with mainly recreational fishing vessels employing hook and line gear (Section 2.1.3). Commercial interactions with Atlantic billfish also tend to occur in open oceanic environments The actions included in this amendment are subsequently directed at activities in these environments. The essential fish habitat (EFH) of Atlantic billfish are described in Section 4.2 and 4.3. A discussion of potential threats to Atlantic billfish EFH is provided in Section 4.4.

3. Will final actions included in the FMP amendment have an adverse impact on public health or safety?

National Standard 10 of the Magnuson-Stevens Act emphasizes the requirement that conservation and management measures shall, to the extent practicable, promote the safety of human life at sea. Fishing, whether recreational or commerical, is inherently dangerous where not all hazardous situations can be foreseen or avoided. The final actions are not expected to have any substantial adverse impact on public health or safety. Section 3.10 discusses safety concerns and mitigating factors in Atlantic billfish fisheries. In addition, where relevant, safety concerns are discussed following each alternative.

4. Will final actions included in the FMP amendment have an adverse effect on endangered or threatened species or a marine mammal population?

The directed Atlantic billfish fishery in the United States is strictly recreational in nature, with the majority of fish caught with hook and line gear. As discussed under Section 1.7.7 and 1.7.8, NMFS has classified rod and reel gear as Category III, with only a remote likelihood of (Category III) incidental mortality and serious injury to marine mammals. The Biological Opinion completed on the FMP amendment indicates that none of the measures are anticipated to

have an adverse affect on the recovery of endangered or threatened species, or their critical habitat.

5. *Will final actions included in the FMP amendment result in cumulative adverse effects that could have a substantial effect on the target resource species or any related stocks that may be affected by the action?*

The final actions of the Atlantic billfish FMP amendment are not expected to result in cumulative adverse impacts that could have a substantial effect on Atlantic billfish stocks or any related resources, including endangered and threatened species, such as turtles or marine mammal. In fact, the over-arching goal of this amendment is to utilize the rebuilding plan developed in the FMP Amendment to reduce directed and bycatch mortality rates toward Atlantic-wide recovery of overfished billfish stocks.

6.6 Unavoidable Adverse Effects

The final actions of the Atlantic billfish FMP amendment do not have any unavoidable adverse impact in terms of the FSEIS. Unavoidable economic impacts are discussed in Section 5.4.

6.7 Irreversible or irretrievable commitment of resources

No irreversible or irretrievable commitments of resources are expected.

6.8 Mitigating Measures

No significant environmental impacts are expected to result from the final actions in this FMP amendment; therefore, no mitigating measures are proposed.

6.9 List of Preparers and Agencies Consulted

The complete list of preparers and agencies consulted can be found in sections 1.10 and 1.11. The development of this FMP amendment involved input from numerous government agencies and constituent groups, including: the NMFS Southeast Fisheries Science Center; the NMFS Northeast Fisheries Science Center; the NMFS Northeast Regional Office; the NMFS Southeast Regional Office; NMFS Headquarters Staff (F/SF; F/PR; F/HC; F/ST; F/PA); and the U.S. ICCAT Advisory Committee. NMFS also consulted with and received comments from many groups and agencies. As part of the HMS management process, "consulting parties" participate in the preparation and evaluation of draft FMP documents. The consulting parties include the U.S. Department of State (DOS); the U.S. Coast Guard (USCG); the New England Fishery Management Council; the Mid-Atlantic Fishery Management Council; the Caribbean Fishery Management Council; the Gulf of Mexico Fishery Management Council; the South Atlantic Fishery Management Council; the U.S. ICCAT Advisory Committee; the ICCAT Commissioners; and the advisory panels appointed under the Magnuson-Stevens Act. Copies of

the draft FMP amendment were distributed to the consulting parties during the public comment period. NMFS carefully considered all comments received from the public and the consulting parties before developing the final actions in this FMP amendment. In addition, NMFS received valuable support in the development of this FMP amendment from commercial and recreational fishermen who have provided NMFS with valuable comments, information about the fisheries, and data in the form of mandatory logbooks, voluntary economic information, and observer information for many years. Comments received from the environmental community and other concerned constituents were also helpful in the development of the alternatives considered in this FMP amendment.